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EXAMINER

JUSKA, CHERYL ANN

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/617,923
Filing Date: July 11, 2003
Appellant(s): DEMOTT ET AL.

John E. Vick, Jr.
For Appellant

EXAMINER'S ANSWER

**MAILED
JUN 28 2007
GROUP 1700**

This is in response to the appeal brief filed February 23, 2007, appealing from the Office action mailed April 25, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct.

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The rejection of claims 26 and 31 under 35 USC 112, 1st paragraph is hereby withdrawn.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 6,492,001	Rubin et al.	12/2002
US 5,672,222	Eschenbach	09/1997
US 2004/0058603	Hayes	03/2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 8 and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not provide support for a second binder material used *in conjunction* with the first latex binder material as is presently claimed. In particular, the specification teaches the use of the second binder (i.e., binder fibers of low melt polyethylene or bicomponent polyester) *as an alternative* to the latex binder (sections [0028] and [0029]):

(0028) A binder material may be employed in other applications of the invention. For example, a binder acts to hold the fibers together within the nonwoven needled layered 28. Such a binder material could be blended with the stable fibers, and for example could include lower melt polyethylene fibers which melt clear and shrink down to stabilize and strengthen the nonwoven needled layer 28. This, for example, could include heat set 2 inch long polyethylene fibers, which could for example be applied at about 5 - 20% by weight polyethylene fibers.

(0029) In another application of the invention, a latex binder could be employed in which an acrylic co-polymer is used with a bromine-containing or a phosphorus-containing material to be applied as a flame retardant coating applied by applicator 25 shown in Figure 1. Thus, as a second method of employing binder material, instead of using low melt fibers, an acrylic co-polymer composition could be sprayed using the applicator 25 directly upon the surface of the nonwoven needled layer 28. Other applications could employ a spray or roll-on of a similar composition which acts to bind the nonwoven needled layer 28 to form a structurally stable layer. Such compositions could be applied at a rate of about 1 to 2 ounces per square yard, or in other applications at a rate of about 4 to 12 ounces per square yard. In some applications of the invention, polymeric compositions applied at a rate of between about 1 and 5 ounces per square yard would be desirable. Furthermore, a flame retardant composition could be applied of a rate of between about 1 and 12 ounces per square yard of material.

Therefore, claims 8 and 42 are rejected as containing new matter.

2. Claims 1-6, 8, 10-16, 18-20, 26, 35-40, 42, and 44-50 stand rejected under 35 USC 103(a) as being unpatentable over US 6,492,001 issued to Rubin et al. in view of US 5,672,222 issued to Eschenbach.

Rubin discloses a fabric treated with a fluorochemical composition and at least one polymeric film (abstract). Said fabric may be a woven, nonwoven, or knit fabric comprised of natural or synthetic fibers, such as cotton and polyester, respectively (col. 2, lines 60-67). The fluorochemical treatment is preferably a latex composition and may also include a fire retardant (col. 3, lines 54-60 and col. 5, lines 6-12). The polymeric film is preferably about 0.5 – 10 mils thick and may be made of aliphatic or aromatic urethanes (col. 6, lines 16-40). Said film may be adhered to the fabric by an intermediate adhesive layer comprised of a hot-melt polymer such as

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polyester or a liquid adhesive such as a plastisol (col. 6, line 41-col. 7, line 21). Thus, the limitations of claims 1-3, 10, 15, 16, 18-20, 35-37, 43, 49, and 50 are disclosed by Rubin with the exception (a) that the nonwoven is a needlepunched nonwoven fabric and (b) the acrylic latex binder is applied to the second side (only).

Regarding the former exception, Rubin is silent with respect to suitable constructions for said nonwoven fabric. However, needlepunched nonwoven fabrics with or without pile loops are well known in the art. Applicant is hereby given Official Notice that needlepunched nonwovens having a flat surface (i.e., no pile) are a common form of nonwoven fabrics. [Note applicant has not contested said Official Notice.] Additionally, needlepunched nonwovens having pile are well known in the art. For example, Eschenbach discloses a needlepunched nonwoven fabric comprises of staple fibers that are entangled by needling to form a surface having loops or cut pile thereon (abstract and col. 2, lines 5-55). As such, one skilled in the art would have been able to select a needlepunched nonwoven, with or without a pile side, as the nonwoven construction for the Rubin invention since said nonwovens are common in the art and since pile fabric are desirable for certain applications.

Regarding the latter of the exceptions wherein an acrylic latex binder is applied to the second side (only) of nonwoven, it is first argued that the claim limitation is descriptive of a method step rather than necessarily the structure of the final product. As such, said limitation is not given patentable weight at this time. In order to be given patentable weight, a method limitation must materially effect the final product in a structural manner. The presence of process limitations on product claims in which the product does not otherwise patentably distinguish over the prior art, cannot impart patentability to the product. *In re Stephens*, 145

USPQ 656. Specifically, application of a binder material to a second side of a nonwoven, even application only to said second side, does not necessarily limit the binder to only the second side in the structure of the final product. The claim only requires *application* from one side which does not exclude penetration throughout the nonwoven.

In the event, the method of binder application is given patentable weight, Eschenbach clearly teaches a latex *backcoat* only applied to one side of needlepunch nonwoven pile fabrics (col. 2, lines 49-55). As such, it would have been readily obvious to modify the binder application and location of Rubin with the teachings of Eschenbach in order to stabilize the nonwoven fabric.

With respect to the latex binder being acrylic, Eschenbach only exemplifies a styrene-butadiene (SBR) latex (col. 3, line 35). However, applicant is hereby given Official Notice that acrylic latexes are well known in the art of latex binders. [Note applicant has not contested said Official Notice.] As such, it would have readily obvious to one skilled in the art to employ an acrylic latex for the SBR latex of Eschenbach since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Therefore, claims 1-3, 10, 15, 16, 18-20, 35-37, 43, 49, and 50 are rejected as being obvious over the cited prior art.

With respect to claims 4, 5, 38, and 39, Rubin does not explicitly teach the use of polypropylene fibers. However, Rubin teaches synthetic fibers in general are suited for the invention. Applicant is hereby given Official Notice that polypropylene fibers are common synthetic textile fibers. [Note applicant has not contested said Official Notice.] Thus, it would have been obvious to one skilled in the art to select polypropylene fibers as the synthetic fiber of

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the Rubin fabric since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Additionally, it would have been readily obvious to one skilled in the art to employ a blend of polyester and polypropylene fibers since it has been held obvious to combine two compositions each of which is taught by prior art to be useful for the same purpose in order to form a third composition that is to be used for very same purpose. The idea of combining them flows logically from their having been individually taught in prior art. Thus, the claims which are no more than mixing together of two conventional compositions are set forth as obvious subject matter. *In re Kerkhoven*, 205 USPQ 1069. Therefore, claims 4, 5, 38, and 39 are also rejected as obvious over the cited prior art.

With respect to claims 6 and 40, Eschenbach teaches needlepunched nonwoven pile fabrics having basis weights ranging from 6 – 30 oz/yd² based upon the desired end use (col. 3, lines 22-23). Thus, it would have been readily obvious to select the claimed basis weight for the nonwoven fabric of Rubin based upon the desired end use. Therefore, claims 6 and 40 are also rejected as obvious over the cited prior art.

Regarding claims 8 and 42, Eschenbach teaches the use of binder fibers, such as low melt polyethylene or low melt nylon in combination with latex backcoats to bind the nonwoven fabric (abstract, col. 2, lines 49-55, col. 3, lines 20-25 and 56-62). Thus, it would have been readily obvious to one of ordinary skill in the art to employ a combination of binders as disclosed by Eschenbach in order to provide a dimensionally stable nonwoven pile fabric. Therefore, claims 8 and 42 are also rejected as obvious over the cited prior art.

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With respect to claims 11 and 45, Rubin teaches the addition of a flame retardant to the latex binder, but fails to teach the amount of flame retardant material. Additionally, it would have been obvious to one skilled in the art to select an appropriate amount of flame retardant to meet the government standards for flammability. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Therefore, claims 11 and 45 are also rejected.

Regarding claims 12-14 and 46-48, the cited prior art does not explicitly teach fibers containing a flame retardant. However, it is well known in the art to employ flame retardant fibers as a means of providing a flame retardant material. Such flame retardant fibers include those that are inherently flame resistant and those that have been treated with flame retardant compositions, such as phosphorus and bromide compounds. [Note applicant has not contested these facts.] As such, it would have been readily obvious to employ flame retardant fibers in the nonwoven fabric in order to enhance the flame retardant properties of the invention disclosed by the combination of Rubin and Eschenbach. Therefore, claims 12-14 and 46-48 are rejected.

Regarding claim 26, the prior art does not explicitly teach the polyester adhesive has the claimed melting point. However, it is argued that said melting temperature is met by the disclosure of said polyester adhesive since like materials cannot have mutually exclusive properties. Additionally, it would have been obvious to one skilled in the art to select an adhesive having a melt temperature that is sufficient to bond the layers while being low enough not to cause degradation of the materials being bonded upon heat-activation of said adhesive. Therefore, claim 26 is also rejected.

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3. Claims 17, 23, 27-34, and 51 stand rejected under 35 USC 103(a) as being unpatentable over US 6,492,001 issued to Rubin et al. in view of US 5,672,222 issued to Eschenbach and in further view of US 2004/0058603 issued to Hayes.

In addition to the limitations that have been previously addressed, said claims limit the polyurethane film layer to comprise an aromatic polyether, preferably a halogenated aromatic polyether. While Rubin teaches suitable polyurethane films include aliphatic and aromatic urethanes, the reference does not explicitly teach a polyurethane comprising an aromatic polyether. However, said aromatic polyether polyurethanes are well known in the art. For example, Hayes teaches a aromatic poly(ether-urethane) copolymer for use in making a laminated tarp (section [0154]). Hence, it would have been obvious to one of ordinary skill in the art to select a known specific polyurethane, such as that by Hayes, for the generic polyurethane teaching of Rubin. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Therefore, claims 17, 23, 27-34, and 51 are rejected.

(10) Response to Argument

1. Appellant traverses the 112, 1st rejection of claims 8 and 42 by arguing that the separate teachings of latex binder material and of binder fibers within the specification renders support for the combination of the two binder materials in a single embodiment (Brief, paragraph spanning pages 5-6). Appellant also asserts the examiner's reading of the specification's teaching that the two binder materials are alternatives to one another is unduly narrow (Brief, page 6, 1st paragraph). While the examiner is not asserting that separate teachings of two features within a

specification does not necessarily enable the combination of said two features, it is asserted that a teaching of *alternative* features does not enable the combination of said features in a single embodiment. Hence, the specification as originally filed does not provide adequate support that the inventors had possession of the invention recited in claims 8 and 42.

2. Appellant traverses the rejection of the claims as being obvious over Rubin in view of Eschenbach by asserting the examiner has not presented appropriate motivation for the modification of the primary reference (Brief, page 8, 1st paragraph, paragraph spanning pages 10-11, and page 18, 2nd paragraph). Specifically, appellant contends the rejection is “void of any express teaching, suggestion or motivation to combine elements from multiple references to reconstruct such a combination – other than the fact that the various components or sub-combinations of various components are found in multiple references” (Brief, page 9, last paragraph, page 13, 2nd paragraph, page 19, 1st paragraph, and page 20, 1st paragraph). In response, Rubin is silent with respect to suitable constructions for the nonwoven fabric. As such, one must look to the prior art for said construction, such as the cited Eschenbach reference. If all the features are known to the art, the act of physically combining them is within the level of skill in the art and if the results are predictable, then the combination of said features is likely to be obvious.

Additionally, appellant asserts the proposed modification of the primary reference appears to be inconsistent with the teachings of said reference (Brief, page 8, 1st paragraph). In particular, appellant asserts the binder of the present invention is fundamentally inconsistent with the teachings of Rubin’s “treatment composition” (Brief, paragraph spanning pages 11-12). Appellant defines binder as a material that “acts to hold the fibers together within the nonwoven

needled layer (Brief, page 11, 1st paragraph and page 15, 1st paragraph). Appellant asserts this is inconsistent with Rubin's latex since the hand of fabric is maintained after application of said latex (Brief, paragraph spanning pages 11-12 and paragraph spanning pages 15-16). However, contrary to appellant's assertions (Brief, paragraph spanning pages 11-12 and paragraph spanning pages 15-16), said definition of binder does not necessarily require a significant change in the tactile character of the fabric. Hence, the rejection at hand is not inconsistent with the teachings of the reference. Note that, despite Rubin's lack of a recitation to a "binder," the latex based treatment composition of Rubin will inherently hold or bind the fibers of the fabric together.

Also, appellant asserts the treatment composition of Rubin is applied by drawing the fabric "through a bath" so that it "cover[s] equally well both sides (i.e., surfaces) of the fabric" (Brief, paragraph spanning pages 12-13 and page 16, 1st paragraph). This argument is unpersuasive since it is not necessarily commensurate in scope with the presently claimed invention. As discussed above in the rejection, appellants claims merely limit the application method of the binder rather than the structural location of said binder in the final product. Hence, the invention of Rubin is not necessarily precluded by appellant's claim language. Even though product-by-process claims (i.e., product claims reciting method limitations) are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. As such, independent claims 1, 32, and 35 only require binder to present on *at least* the second side of the nonwoven and do not preclude binder from being on the first side of or within the nonwoven.

In the event that the binder is limited to being present on only the second side of the nonwoven, it has been argued that Eschenbach clearly teaches a backcoat (i.e., binder applied to non-pile side of nonwoven). Appellant asserts there is no motivation to modify the Rubin invention in such a manner since the latex backcoat of Eschenbach adds stiffness to the fabric (Brief, paragraph spanning pages 16-17). In response, the teachings of Rubin and Eschenbach are indeed consistent in that one skilled in the art would readily understand that application of the binder to the pile side would likely alter the hand of said pile. Hence, a solution taught by Eschenbach is to have binder only on the backside thereof, which provides dimensional stability of the nonwoven pile fabric while maintaining the hand of the pile.

3. Regarding the rejection of claims 17, 23, 27-34, and 51, appellant presents no new arguments. As such, said rejection is maintained.

In response to appellant's traversal of the examiner's Official Notice for pile and non-pile needlepunched nonwovens and the use of acrylic latexes, to adequately traverse such a finding, applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. Appellant has not previously argued said facts of Official Notice, as such said facts are taken to be an admission of appellant.

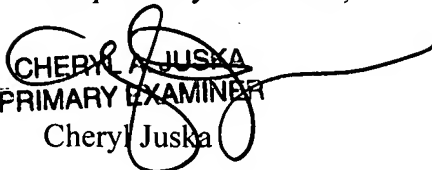
(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


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